

AMENDMENT OF SOLICITATION/MODIFICATION OF CONTRACT		1. CONTRACT ID CODE		PAGE OF PAGES
2. AMENDMENT/MODIFICATION NO.		3. EFFECTIVE DATE	4. REQUISITION/PURCHASE REQ. NO.	5. PROJECT NO. <i>(If applicable)</i>
6. ISSUED BY		CODE	7. ADMINISTERED BY <i>(If other than Item 6)</i>	
			CODE	
8. NAME AND ADDRESS OF CONTRACTOR <i>(No., street, county, State and ZIP Code)</i>		(X)	9A. AMENDMENT OF SOLICITATION NO.	
			9B. DATED <i>(SEE ITEM 11)</i>	
			10A. MODIFICATION OF CONTRACT/ORDER NO.	
			10B. DATED <i>(SEE ITEM 13)</i>	
CODE		FACILITY CODE		

11. THIS ITEM ONLY APPLIES TO AMENDMENTS OF SOLICITATIONS

☐ The above numbered solicitation is amended as set forth in Item 14. The hour and date specified for receipt of Offers ☐ is extended, ☐ is not extended. Offers must acknowledge receipt of this amendment prior to the hour and date specified in the solicitation or as amended, by one of the following methods: (a) By completing Items 8 and 15, and returning _____ copies of the amendment; (b) By acknowledging receipt of this amendment on each copy of the offer submitted; or (c) By separate letter or telegram which includes a reference to the solicitation and amendment number. FAILURE OF YOUR ACKNOWLEDGEMENT TO BE RECEIVED AT THE PLACE DESIGNATED FOR THE RECEIPT OF OFFERS PRIOR TO THE HOUR AND DATE SPECIFIED MAY RESULT IN REJECTION OF YOUR OFFER. If by virtue of this amendment you desire to change an offer already submitted, such change may be made by telegram or letter, provided each telegram or letter makes reference to the solicitation and this amendment, and is received prior to the opening hour and date specified.

12. ACCOUNTING AND APPROPRIATION DATA *(If required)*

**13. THIS ITEM APPLIES ONLY TO MODIFICATIONS OF CONTRACTS/ORDERS,
IT MODIFIES THE CONTRACT/ORDER NO. AS DESCRIBED IN ITEM 14.**

(X)	A. THIS CHANGE ORDER IS ISSUED PURSUANT TO: <i>(Specify authority)</i> THE CHANGES SET FORTH IN ITEM 14 ARE MADE IN THE CONTRACT ORDER NO. IN ITEM 10A.
	B. THE ABOVE NUMBERED CONTRACT/ORDER IS MODIFIED TO REFLECT THE ADMINISTRATIVE CHANGES <i>(such as changes in paying office, appropriation date, etc.)</i> . SET FORTH IN ITEM 14, PURSUANT TO THE AUTHORITY OF FAR 43.103(b).
	C. THIS SUPPLEMENTAL AGREEMENT IS ENTERED INTO PURSUANT TO AUTHORITY OF:
	D. OTHER <i>(Specify type of modification and authority)</i>

E. IMPORTANT: Contractor ☐ is not, ☐ is required to sign this document and return _____ copies to the issuing office.

14. DESCRIPTION OF AMENDMENT/MODIFICATION *(Organized by UCF section headings, including solicitation/contract subject matter where feasible.)*

Except as provided herein, all terms and conditions of the document referenced in Item 9A or 10A, as heretofore changed, remains unchanged and in full force and effect.

15A. NAME AND TITLE OF SIGNER <i>(Type or print)</i>		16A. NAME AND TITLE OF CONTRACTING OFFICER <i>(Type or print)</i>	
15B. CONTRACTOR/OFFEROR	15C. DATE SIGNED	16B. UNITED STATES OF AMERICA BY _____	16C. DATE SIGNED
<i>(Signature of person authorized to sign)</i>		<i>(Signature of Contracting Officer)</i>	

NAME OF OFFEROR OR CONTRACTOR

ITEM NO.	SUPPLIES/SERVICES	QUANTITY	UNIT	UNIT PRICE	AMOUNT

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Minutes of Pre-proposal Conference
December 17, 2002
Building 139, Vehicle Maintenance Complex
Rooms 408, 417 and 418
Selfridge ANGB, Michigan
Solicitation No. DTRS57-03-Q-80011

Presenters:

William H. Moore, Jr., Contracting Officer
Alison R. Shedd, Contract Specialist
William P. Chernicoff, Technical Representative

Observers:

Todd M. Frank, WG10 Mechanic, USAF/MIANG
Gordon Lee, Supervisor Transportation, Selfridge ANGB

Handouts:

Folders containing Volpe Center brochure/bookmark
Prints of presentation
Blank Index Cards

At 11:00 AM, William H. Moore, Jr., Contracting Officer, welcomed participating contractor and introduced himself, Alison Shedd, Contract Specialist, and William Chernicoff, Technical Representative. Mr. Moore provided a summary of the Volpe Center's involvement in this procurement and other transportation-related functions. In addition, Mr. Moore covered contractual highlights including ground rules for the conference and site visit, and an overview of the technical requirements. Refer to presentation handouts, (Attachment No. 4) for details.

At 11:34 AM, as Mr. Moore was completing the overview of the solicitation, one attendee entered the conference room and joined the conference. The attendee signed the attendance sheet and was provided with a folder containing the handouts. Mr. Moore introduced himself and repeated the ground rules for the conference.

At 11:36 AM, Mr. Moore collected the index cards on which attendees had recorded questions. Mr. Moore passed the questions to Mr. Chernicoff, who then prepared written responses.

At 11:40 AM, Mr. Moore read the questions and provided answers.

At 11:45 AM, the group continued the conference by viewing two MB-4 tow tractors and the battery pack that is to be installed in the vehicle.

DTRS57-03-Q-80011

Amendment A0007

Attachment No. 1

Page 2 of 4

At 12:00 PM, the group reconvened in the conference room. Mr. Moore and Ms. Shedd thanked attendees for their interest in the procurement and concluded the conference at approximately 12:05 PM.

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Pre-proposal Conference
Selfridge ANGB, Michigan
Attendance Sheet

<u>NAME:</u>	<u>COMPANY:</u>	<u>TELEPHONE NO.</u>
William H. Moore, Jr.	Volpe Center	(617) 494-2627
Alison R. Shedd	Volpe Center	(617) 494-2631
William Chernicoff	Volpe Center	(617) 494-2756
Todd M. Frank	USAF/MIANG	(586) 307-4150
Gordon Lee	Selfridge ANGB	(586) 307-5308
Brandon Card	ICRC	(248) 823-4293
(Approximately 11:34 am)		
Fred Bane	MSXI	(288) 829-5188

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Pre-proposal Conference
Selfridge ANGB, Michigan
Questions and Answers

The following questions and answers are provided for informational purposes only:

QUESTION 1: Is there a required maintenance schedule or a maintenance schedule for the standard MB-4 tow tractor available to base service requirements from?

ANSWER 1: Yes, there is a maintenance manual for the standard MB-4 tow tractor and a maintenance manual for the hybrid MB-4 tow tractor.

QUESTION 2: Is the contractor required to maintain the entire vehicle or just the upgraded components?

ANSWER 2: The contractor is required to maintain the hybrid propulsion system. For example, the contractor is not required to service the wheels, etc., but is required to service the DC-DC converter and/or the high voltage system.

QUESTION 3: Will the duty cycle for the hybrid MB-4 be the same as for a standard tow tractor?

ANSWER 3: Yes, the duty cycle for the hybrid MB-4 tow tractor will be the same as the duty cycle of a standard tow tractor.

QUESTION 4: How can contractors ensure the quality and/or functionality of the battery pack?

ANSWER 4: Replacing the battery pack is not a requirement of this RFQ. Robins AFB is responsible for providing functioning battery packs.



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Pre-Proposal Conference
System Upgrade for One (1) Hybrid
Electric MB-4 Tow Tractor
December 17, 2002
Selfridge Air National Guard Base,
Michigan
DTRS57-03-Q-80011





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Introductions

- William H. Moore, Jr.
Contracting Officer
- Alison Shedd
Contract Specialist
- William Chernicoff
Technical Representative



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Volpe National Transportation Systems Center

The Volpe Center is an organization within the U.S. Department of Transportation's Research and Special Programs Administration dedicated to creating awareness and fostering technical, operational, and managerial innovations in the transportation system. In this endeavor, we support federal, state, and local agencies and international entities with critical transportation-related functions and missions.



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Agenda

- Ground Rules
- Contractual and Technical Overview of the RFQ
- Site Visit - Viewing of the MB-4 Tow Tractors
- Question and Answer Session



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Ground Rules

- Terms and conditions of the solicitation remain unchanged unless an amendment is issued which incorporates any possible changes discussed or alluded to during today's pre-proposal conference or site visit.
- Each attendee will receive a copy of today's presentation. All questions must be received in writing on index cards provided. Questions will be answered at the end of the Site Visit.



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Ground Rules (cont.)

- Cameras and video cameras will not be permitted on site.
- Attendees will not be allowed to speak with employees at Selfridge ANGB.
- Attendees must remain with the Contracting Officer, Contract Specialist and Technical Representatives at all times.
- Please sign the Attendance Sheet.
- Questions received will be addressed in Amendment No. A0007.



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Overview of Solicitation

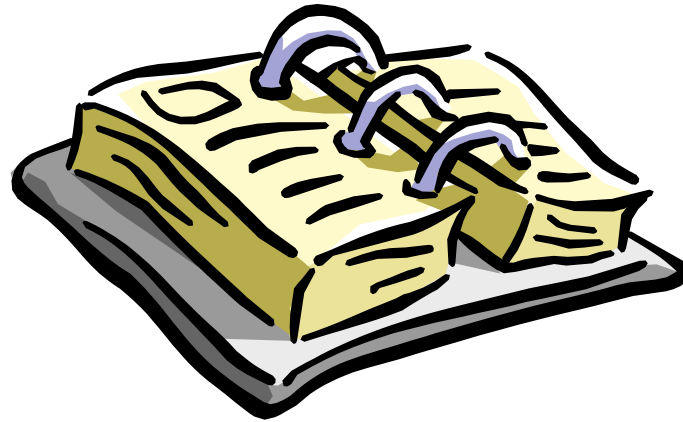
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Contractual Information Technical Overview



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Contractual Information





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AWARD

- Proposals are due by 2:00 PM EST on December 30, 2002.
- The award is projected to be made during the week of January 20, 2003.
- A firm-fixed price Purchase Order will be issued as a result of this solicitation.
- Price quotations shall include the Base requirement, Option 1 and Option 2.



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TERMS AND CONDITIONS

- The Contracting Officer is utilizing policies and procedures prescribed in Federal Acquisitions Regulation (FAR) Part 12, Acquisition of Commercial Items, Part 13, Simplified Acquisition Procedures, and Part 15, Contracting by Negotiation Procedures.
- FAR Commercial Items Clauses 52.212-1, Instructions to Offerors, 52.212-3, Offeror Representations and Certifications, 52.212-4, Contract Terms and Conditions, and 52.212-5, Contract Terms and Conditions Required to Implement Statutes or Executive Orders, are incorporated by reference.



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OPTIONS

- Option 1 (CLIN 0002): Painting and stenciling of ferrous metal surfaces.
- Option 2 (CLIN 0003): Modification of battery and electrical controls compartments.
- The Government will evaluate offers by adding the total price for all options to the total price for the basic requirement.
- Evaluation of options will not obligate the Government to exercise the options.



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PERIOD OF PERFORMANCE

- The systems upgrade must be completed within 180 days from the date of award of the Purchase Order.
- Additional servicing is required for a minimum of one year from the date of delivery of the vehicle to Selfridge ANGB, Michigan.
- Service must be provided within a two-hour window. Service must be included in CLIN pricing.
- Contractor is expected to pay travel expenses.



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DELIVERY

- The Government will be responsible for transport of the vehicle to the contractor's facility and for delivery of the vehicle from the contractor's facility to Selfridge ANGB upon completion of the required work.
- Upon delivery, the vehicle will remain at Selfridge ANGB, MI. Any additional work or service will be performed at Selfridge ANGB.



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HANDLING AND PRESERVATION

- Contractor shall assume full responsibility while the vehicle is at contractor's facility.
- Vehicles shall be handled and stored in such a manner as to give protection against rust, corrosion, other damage, and theft while at the contractor's facility.
- Contractor must be aware of all OSHA regulations and conform to all federal and state laws governing the disposal of hazardous material and is required to dispose of all material not intended to be reused while performing the upgrade.



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AWARD CONSIDERATIONS

The Offeror that is awarded the Purchase Order will be the one deemed the best value to the Government on the basis of:

1. Technical Merit
2. Price

Offerors must submit:

1. Technical Proposal
2. Price Proposal



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TECHNICAL EVALUATION

- Proposals will be evaluated according to the Technical Evaluation Guidelines in FAR 52.212-2.
- The technical evaluation will be conducted on a pass/fail basis.



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TECHNICAL EVALUATION CRITERIA

Technical proposals must include:

1. Copies of Applicable Certifications
(ASME, ASTM, AISI, UL), provided by a
Nationally Recognized Testing Laboratory
2. Delivery Schedule
3. Service Plan
4. Quality Assurance Plan
Include QA plan for any subcontractors. ISO
9000 Certification preferred, but not required.
5. Outline of Proposed Work



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Technical Overview





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PURPOSE

SYSTEMS UPGRADE OF ONE (1) HYBRID ELECTRIC TOW TRACTOR

The purpose of the systems upgrade is to assist in the support and implementation of Air-Force wide and regional clean transportation and alternative fuel infrastructure and systems.



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OBJECTIVES

- Replace diesel genset with integration of Capstone Model 330 Microturbine into a hybrid electric vehicle.
- Field test and evaluate the benefit of microturbine and rapid charge technology in a hybrid electric vehicle.
- Integration of grid-charging technology, DC-DC converter, and data acquisition system into a hybrid electric tow tractor.
- Validate technology effect on the original system and performance documented in a preliminary and final report.



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STATEMENT OF WORK

The Contractor shall:

- Perform the required work on Government Furnished Equipment (GFE) to satisfy the conditions and requirements of the Statement of Work.
- Modify the original equipment to remove the auxiliary power unit and replace it with a Capstone Model 330 Microturbine power unit.



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WORK REQUIREMENTS

- Install DC-DC converter.
- Fabricate and install mounting for DC-DC converter.
- Install Capstone Model 330 Microturbine (Note: Drive Train specifications are for informational purposes only).
- Investigate and perform the integration of component supplier recommended traction battery pack.
- Integrate SAE standard J-1772 and J-2293 compliant grid-charging system.



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WORK REQUIREMENTS

(CONT.)

- Integrate battery management system.
- Fabricate and install mounting for battery management system.
- Install charging port per manufacturer's suggested installation procedures.
- Fabricate and install mounting charging port.
- Research electrical wiring interface to vehicle.
- Fabricate and install required vehicle wiring and interface.
- Incorporate data acquisition system.



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VEHICLE DESCRIPTION AND PERFORMANCE REQUIREMENTS

Type of Vehicle	MB-4 Aircraft Towing Tractor, 4X4 Diesel/Electric Hybrid
Vehicle ID Nos.	00L00047 and 99L518
Crew	Driver plus one passenger
Nominal Drawbar Pull	18,000 Lb. (8,164 kg)
Driving Speed (max on paved surface)	Low Range: 0-11mph (0-18 kph) High Range: 12-25mph (19-40kph)
Towing Speed	Aircraft: 3 mph (5kph) Trailer: 15 mph (24 kph)
Towing Capacity	Aircraft: 175,000lb / 79,380 kg



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CAPSTONE REQUIREMENT

- The microturbine utilized in the upgrade must be a Capstone Model 330 HEV Microturbine (Part No. M3C-30Y-DB5-F00B). No equivalent microturbine system will be considered.
- The two companies identified by Capstone Turbine Corporation as the only business partners it would support for this project are Enova Systems (POC Ed Moore) and Advanced Vehicle Systems, Inc. (POC Rick Hitchcock).
- Contractors are responsible for contacting Enova, AVS, or Capstone Turbine Corporation to determine the willingness of these companies to supply systems on a subcontract basis.



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PRINCIPAL OF OPERATION

- Set of 48 lead batteries supplies electrical energy for powering the AC induction drive motor.
- Auxiliary power unit consisting of a generator driven by a conventional fuel powered engine through a speed increaser provides power to augment batteries.
- AC motor provides driving energy to wheels through a 2-speed transfer case that allows continuous four-wheel drive.
- Variable electric motor permits operation of the vehicle at any speed, forward or reverse.
- Shifting control buttons and high range/low range control switch are mounted in the cab.



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GOVERNMENT FURNISHED EQUIPMENT (GFE)

- Two non-operational hybrid electric tow tractors (Note: Only the tow tractor to be upgraded will be delivered to the contractor).
- One on-site charging station.
- Two tow tractor technical manuals entitled “F09603-97-C-0308 Technical Manual Hybrid Electric Tow Tractor 25/01/2000” and “Hybrid Electric Tow Tractor Maintenance Training 1996.”



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GOVERNMENT FURNISHED EQUIPMENT (GFE)

- In the event of part failure, or for warranty reasons, all parts and equipment that are part of a non-hybrid MB-4 tow tractor will be made available by the Government to the contractor.
- A second identical non-functioning hybrid electric MB-4 tow tractor will be available for propulsion and control system parts use by the contractor.
- Structural items, such as windows, may not be used by the contractor without permission from the Government.
- The contractor must demonstrate a need to use any additional parts or components. If approved, the components will be sent to the contractor.



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CERTIFICATION

- The tractor is currently certified for service.
- The contractor shall not deliver a vehicle that must be retested for certification.
- The contractor shall not alter the axle loads or the center of gravity of the vehicle such that this will decertify the vehicle.
- The contractor may not modify the vehicle such that visibility is reduced in any direction from any view.
- The vehicle must maintain its original capabilities.



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REFERENCES AND COMPLIANCE

- Tow tractor reconditioning must satisfy all of the regulations and standards listed on page 2 of the Statement of Work.
- These regulations and standards include, but are not limited to Code of Federal Regulations (CFR), American Society of Mechanical Engineers (ASME), American Society for Testing and Materials (ASTM), American Iron and Steel Standards (AISI), Society of Automotive Engineers (SAE) and Underwriters Laboratories (UL).



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INSPECTION AND TESTING

A road test shall be performed before final acceptance and must demonstrate the following:

- Tow tractor must operate for a period of one hour towing airplanes, transversing the roadway/tarmac, and towing trailers.
- Tow tractor must tow a minimum of 175,000 lbs. (79,380 kg) on a level grade for approximately 1000 feet at three (3) mph (5 kph).



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ACCEPTANCE

An evaluation shall occur at final acceptance of equipment. For this evaluation, the contractor must provide two hard copies of the following:

- Results of all inspections, tests, etc.
- Listing of all items that were changed, modified or replaced on the tow tractor for this procurement.



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DELIVERABLES

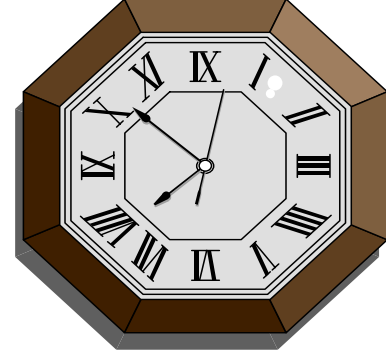
- 2 copies of Technical Manuals which include the components for identification and maintenance, Operator's Procedure Manual, Operator's Service Manual including lubrication orders, all electrical schematics and wiring diagrams, and diagrams of all water, fuel, air and lube systems.
- 2 copies of all certifications, tests, repairs, and inspections.
- Updated GFE Technical Manuals to reflect new sub-system specifications.
- 3 copies of updated operator's manual.
- 3 copies of a Performance Report comparing performance of newly configured vehicle to original specifications.



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TIMETABLE

(Estimated)



December 17, 2002	Pre-Proposal Conference
December 30, 2002	Proposals due
*Week of January 20, 2003	Estimated award date
*Week of February 3, 2003	Estimated start date
*Week of July 28, 2003 * = <i>Approximate Dates</i>	Estimated completion date



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QUESTIONS



- Please write all questions on the index cards provided and submit them to the Contracting Officer or the Contract Specialist.
- A summation of all questions will be available on the Volpe website as Amendment No. A007 to the Solicitation.



Thank you for your interest in this procurement!